

UC Berkeley

Proposals from the Script Encoding Initiative

Title

Proposal for encoding the Meroitic Hieroglyphic and the Meroitic Cursive scripts in the SMP of the UCS

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Universal Multiple-Octet Coded Character Set
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 Международная организация по стандартизации

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
This document replaces N3646R2 (2009-05-13), N3484 (2008-08-04), N2134 (1999-10-02), N1638 (1997-09-18), and contains the proposal summary form.

1. Introduction. The Meroitic script appeared with the rise of the Meroitic Kingdom in the third century BCE, though Egyptian writing (both hieroglyphic and demotic) would certainly have been known and was used previously in the Nubian city of Meroë, a city which is about 6 km north-east of the modern Kabushiya station near Shendi, Sudan, about 200 km north-east of modern Khartoum. Meroitic was used until some time after the fall of the Meroitic Empire in the first half of the fourth century CE. The values of the script's characters are known, but the language itself remains unknown, apart from names and a few other words.













2. Structure. The script has a monumental form, derived from Egyptian Hieroglyphs, and a cursive form, derived from Egyptian Demotic, which was used considerably more frequently than the monumental form. Although there is a relationship between Meroitic Hieroglyphic (*l'écriture hiéroglyphique méroïtique*) and Meroitic Cursive (*l'écriture cursive méroïtique*), the argument that the two should be treated as font variants is not compelling. Publications which cite Meroitic in the original script rather than in transliteration regularly preserve the distinction between Hieroglyphic and Cursive script forms. Essentially, there is no usage requirement where any text written in Meroitic Hieroglyphic would be converted into Cursive, or vice versa. Meroitic Hieroglyphic is only used to write texts which were written in Meroitic Hieroglyphic, and Meroitic Cursive is only used to write texts which were written in Meroitic Cursive. The Meroitic script is essentially two script forms used concurrently, but not interchangeably, for the same language. Scholars distinguish, and need to be able to distinguish, in plain text, Meroitic Hieroglyphic from Meroitic Cursive.

Moreover, in origin the two script forms differ historically. Meroitic Cursive developed over a period of time. Most of its characters are very close to the old Ptolemaic demotic of Upper Egypt (332-186 BCE), in particular / O, // YA, 𐀀 PA, 𐀁 RA, 𐀂 KHA *ha*, 𐀃 SA, 𐀄 QA, and the numbers 𐀅 6, 𐀆 8, 𐀇 9, 𐀈 20, 𐀉 50, 𐀊 70, 𐀋 80, 𐀌 100, 𐀍 200, 𐀎 300, and 𐀏 800. Rilly 2007:247-262 gives a complete discussion of the origin of each individual Cursive character.

Like Meroitic Cursive, Meroitic Hieroglyphic is first known in various forms dating to the reign of Taneyidamani, at the end of the 2nd century BCE. But whilst the goal of Cursive writing was practical, it

appears that the development of the Hieroglyphic form was based in the desire to possess a monumental and decorative version of the Cursive form, and also to participate in the magic power attributed to Egyptian Hieroglyphs. The set of letters devised for Hieroglyphic all have direct parallels with Egyptian Hieroglyphs, and is larger than the set of letters used in Meroitic Cursive, which relates not to Egyptian Hieroglyphs, but to the demotic script which is not unified with the Hieroglyphs. One of the reasons Meroitic Hieroglyphic is larger is an evident uncertainty in which Egyptian characters were to be used for various sounds; both  and  are used for *b*—the former (the ram) having the value *bꜣ* in Egyptian, the latter (the foot) simply *b*. These are also distinguished in current fonts. There is no purely one-to-one relationship between Cursive and Meroitic Hieroglyphic. Meroitic Hieroglyphic is used only for formal inscriptions. There are no private documents written in it.























































The two script forms of Meroitic are treated in this encoding as two *separate* scripts and are encoded in two separate blocks, Meroitic Hieroglyphs and Meroitic Cursive.

3. Directionality. The direction of writing is right-to-left, evidently with no exceptions. Unlike Egyptian, where one reads into the faces of the people and animals, in Meroitic, the reading direction follows the way the people and animals are looking. Thus, using arrows to indicate the reading direction, the name *Amūn* (*Imn*, god of Thebes) would be written as *amana* in Meroitic     ← *na-ma-a* ←; in Egyptian Hieroglyphs this would be written  ← with right-to-left directionality, →  with left-to-right directionality. Another way of visualizing this would be that if the *cognate* Egyptian characters were written with right-to-left directionality, they would appear reversed from the Meroitic point of view, thus: Meroitic    ←, Egyptian    ←.

4. Punctuation and symbols. Word dividers are employed more or less regularly, to isolate not separate words, but basic elements of sentences—nominal phrases (noun and article, noun and adjective and article, etc) verbal forms, and so on. Three vertical dots are used in Hieroglyphs and early Cursive, though when the Hieroglyphs are set in vertical columns, three horizontal dots are used. It would seem that U+205D TRICOLON ⋮ and U+2026 HORIZONTAL ELLIPSIS ... can serve this function. In later Cursive texts this became reduced to a U+003A COLON :, used with some irregularity. Two logograms derived from Egyptian Demotic are used with Meroitic Cursive, and two ankh-like symbols are used with Meroitic Hieroglyphic.

5. Numbers. Meroitic numbers are fairly well known, and are only found in Meroitic Cursive. Ones, tens, hundreds, and thousands are known; characters for 60, 90, and 900 are not yet known; neither are the numbers for 4,000, 6,000, 7,000, 8,000, and 9,000, though the number for 10,000 is cited in secondary literature (a number chart, see Figure 4). There is a system to the number shapes, as there are in Egyptian Hieratic, so gaps have been left in the code table for the numbers as yet unattested.

6. Ordering. Meroitic ordering interfiles the Cursive and Hieroglyphic script forms as well as the encoded variants.

 *a*^c >>  *a*^h >  *e*^c >>  *e*^h >  *o*^c >>  *o*^h >  *i* >>  *i* >  *ya*^c >>  *ya*^h >
 *wa*^c >>  *wa*^h >  *ba*^c >>  *ba*^h >>  *ba*^{h2} >  *pa*^c >>  *pa*^h >  *ma*^c >>  *ma*^h >
 *na*^c >>  *na*^h >>  *na*^{h2} >  *ne*^c >>  *ne*^h >>  *ne*^{h2} >  *ra*^c >>  *ra*^h >>  *ra*^{h2} >
 *la*^c >>  *la*^h >  *ha*^c >>  *ha*^h >  *ha*^c >>  *ha*^h >  *sa*^c >>  *sa*^{c2} >>  *sa*^h >>  *sa*^{h2} >
 *se*^c >>  *se*^h >  *ka*^c >>  *ka*^h >  *qa*^c >>  *qa*^h >  *ta*^c >>  *ta*^h >>  *ta*^{h2} >
 *te*^c >>  *te*^h >>  *te*^{h2} >  *to*^c >>  *to*^{h2} >  *da*^c >>  *da*^h

7. Names. Meroitic has four vowels, namely *a*, *e*, *i* and *o* and a semivowel *y*. The vowel *a* is only written when it is an initial; *e*, *i*, and *o* are also written within words. Meroitic has two types of consonants. A

few consonants are combined with a vowel, namely *ne*, *se*, *te*, and *to*; the other consonants are single consonants, each of which is followed by a vowel (*e*, *i*, *o*) in the inscriptional records. If there is no vowel inserted between two consonants, the consonant is read with an inherent *a*. For example, the Meroitic royal title is *qore*, written 𐎧𐎠𐎢 or 𐎧𐎠𐎢𐎠 ($q + o + r + e$); the title of the supreme commander of the army is *paqara*, written 𐎠𐎢𐎠𐎢 or 𐎠𐎢𐎠𐎢𐎠 ($p + q + r$). In the character names, the inherent *-a* is used for the consonants and the rest of the names follow the usual UCS conventions.

8. Future standardization. At least twenty-four symbols are known, many used in conjunction with numbers and are perhaps determinatives of different types of goods. A number of these with very similar glyphs may not be unique characters at all. Further study of these is required. They are left for future standardization.

9. Unicode Character Properties.

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10980;MEROITIC HIEROGLYPHIC LETTER A;Lo;0;R;;;N;;;
10981;MEROITIC HIEROGLYPHIC LETTER E;Lo;0;R;;;N;;;
10982;MEROITIC HIEROGLYPHIC LETTER I;Lo;0;R;;;N;;;
10983;MEROITIC HIEROGLYPHIC LETTER O;Lo;0;R;;;N;;;
10984;MEROITIC HIEROGLYPHIC LETTER YA;Lo;0;R;;;N;;;
10985;MEROITIC HIEROGLYPHIC LETTER WA;Lo;0;R;;;N;;;
10986;MEROITIC HIEROGLYPHIC LETTER BA;Lo;0;R;;;N;;;
10987;MEROITIC HIEROGLYPHIC LETTER BA-2;Lo;0;R;;;N;;;
10988;MEROITIC HIEROGLYPHIC LETTER PA;Lo;0;R;;;N;;;
10989;MEROITIC HIEROGLYPHIC LETTER MA;Lo;0;R;;;N;;;
1098A;MEROITIC HIEROGLYPHIC LETTER NA;Lo;0;R;;;N;;;
1098B;MEROITIC HIEROGLYPHIC LETTER NA-2;Lo;0;R;;;N;;;
1098C;MEROITIC HIEROGLYPHIC LETTER NE;Lo;0;R;;;N;;;
1098D;MEROITIC HIEROGLYPHIC LETTER NE-2;Lo;0;R;;;N;;;
1098E;MEROITIC HIEROGLYPHIC LETTER RA;Lo;0;R;;;N;;;
1098F;MEROITIC HIEROGLYPHIC LETTER RA-2;Lo;0;R;;;N;;;
10990;MEROITIC HIEROGLYPHIC LETTER LA;Lo;0;R;;;N;;;
10991;MEROITIC HIEROGLYPHIC LETTER KHA;Lo;0;R;;;N;;;
10992;MEROITIC HIEROGLYPHIC LETTER HHA;Lo;0;R;;;N;;;
10993;MEROITIC HIEROGLYPHIC LETTER SA;Lo;0;R;;;N;;;
10994;MEROITIC HIEROGLYPHIC LETTER SA-2;Lo;0;R;;;N;;;
10995;MEROITIC HIEROGLYPHIC LETTER SE;Lo;0;R;;;N;;;
10996;MEROITIC HIEROGLYPHIC LETTER KA;Lo;0;R;;;N;;;
10997;MEROITIC HIEROGLYPHIC LETTER QA;Lo;0;R;;;N;;;
10998;MEROITIC HIEROGLYPHIC LETTER TA;Lo;0;R;;;N;;;
10999;MEROITIC HIEROGLYPHIC LETTER TA-2;Lo;0;R;;;N;;;
1099A;MEROITIC HIEROGLYPHIC LETTER TE;Lo;0;R;;;N;;;
1099B;MEROITIC HIEROGLYPHIC LETTER TE-2;Lo;0;R;;;N;;;
1099C;MEROITIC HIEROGLYPHIC LETTER TO;Lo;0;R;;;N;;;
1099D;MEROITIC HIEROGLYPHIC LETTER DA;Lo;0;R;;;N;;;
1099E;MEROITIC HIEROGLYPHIC SYMBOL VIDJ;So;0;R;;;N;;;
1099F;MEROITIC HIEROGLYPHIC SYMBOL VIDJ-2;So;0;R;;;N;;;
109A0;MEROITIC CURSIVE LETTER A;Lo;0;R;;;N;;;
109A1;MEROITIC CURSIVE LETTER E;Lo;0;R;;;N;;;
109A2;MEROITIC CURSIVE LETTER I;Lo;0;R;;;N;;;
109A3;MEROITIC CURSIVE LETTER O;Lo;0;R;;;N;;;
109A4;MEROITIC CURSIVE LETTER YA;Lo;0;R;;;N;;;
109A5;MEROITIC CURSIVE LETTER WA;Lo;0;R;;;N;;;
109A6;MEROITIC CURSIVE LETTER BA;Lo;0;R;;;N;;;
109A7;MEROITIC CURSIVE LETTER PA;Lo;0;R;;;N;;;
109A8;MEROITIC CURSIVE LETTER MA;Lo;0;R;;;N;;;
109A9;MEROITIC CURSIVE LETTER NA;Lo;0;R;;;N;;;
109AA;MEROITIC CURSIVE LETTER NE;Lo;0;R;;;N;;;
109AB;MEROITIC CURSIVE LETTER RA;Lo;0;R;;;N;;;
109AC;MEROITIC CURSIVE LETTER LA;Lo;0;R;;;N;;;
109AD;MEROITIC CURSIVE LETTER KHA;Lo;0;R;;;N;;;
109AE;MEROITIC CURSIVE LETTER HHA;Lo;0;R;;;N;;;
109AF;MEROITIC CURSIVE LETTER SA;Lo;0;R;;;N;;;
109B0;MEROITIC CURSIVE LETTER ARCHAIC SA;Lo;0;R;;;N;;;
109B1;MEROITIC CURSIVE LETTER SE;Lo;0;R;;;N;;;
109B2;MEROITIC CURSIVE LETTER KA;Lo;0;R;;;N;;;
109B3;MEROITIC CURSIVE LETTER QA;Lo;0;R;;;N;;;
109B4;MEROITIC CURSIVE LETTER TA;Lo;0;R;;;N;;;
109B5;MEROITIC CURSIVE LETTER TE;Lo;0;R;;;N;;;
109B6;MEROITIC CURSIVE LETTER TO;Lo;0;R;;;N;;;
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109BE;MEROITIC CURSIVE LOGOGRAM RMT;Lo;0;R;;;N;;;

































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109C0;MEROITIC CURSIVE FRACTION ONE HALF;No;0;R;;;1/2;N;;;;
109C1;MEROITIC CURSIVE FRACTION ONE TWELFTH;No;0;R;;;1/12;N;;;;
109C2;MEROITIC CURSIVE FRACTION TWO TWELFTHS;No;0;R;;;2/12;N;;;;
109C3;MEROITIC CURSIVE FRACTION THREE TWELFTHS;No;0;R;;;3/12;N;;;;
109C4;MEROITIC CURSIVE FRACTION FOUR TWELFTHS;No;0;R;;;4/12;N;;;;
109C5;MEROITIC CURSIVE FRACTION FIVE TWELFTHS;No;0;R;;;5/12;N;;;;
109C6;MEROITIC CURSIVE FRACTION SIX TWELFTHS;No;0;R;;;6/12;N;;;;
109C7;MEROITIC CURSIVE FRACTION SEVEN TWELFTHS;No;0;R;;;7/12;N;;;;
109C8;MEROITIC CURSIVE FRACTION EIGHT TWELFTHS;No;0;R;;;8/12;N;;;;
109C9;MEROITIC CURSIVE FRACTION NINE TWELFTHS;No;0;R;;;9/12;N;;;;
109CA;MEROITIC CURSIVE FRACTION TEN TWELFTHS;No;0;R;;;10/12;N;;;;
109CC;MEROITIC CURSIVE NUMBER ONE;No;0;R;;;1;N;;;;
109CD;MEROITIC CURSIVE NUMBER TWO;No;0;R;;;2;N;;;;
109CE;MEROITIC CURSIVE NUMBER THREE;No;0;R;;;3;N;;;;
109CF;MEROITIC CURSIVE NUMBER FOUR;No;0;R;;;4;N;;;;
109D0;MEROITIC CURSIVE NUMBER FIVE;No;0;R;;;5;N;;;;
109D1;MEROITIC CURSIVE NUMBER SIX;No;0;R;;;6;N;;;;
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109D3;MEROITIC CURSIVE NUMBER EIGHT;No;0;R;;;8;N;;;;
109D4;MEROITIC CURSIVE NUMBER NINE;No;0;R;;;9;N;;;;
109D5;MEROITIC CURSIVE NUMBER TEN;No;0;R;;;10;N;;;;
109D6;MEROITIC CURSIVE NUMBER TWENTY;No;0;R;;;20;N;;;;
109D7;MEROITIC CURSIVE NUMBER THIRTY;No;0;R;;;30;N;;;;
109D8;MEROITIC CURSIVE NUMBER FORTY;No;0;R;;;40;N;;;;
109D9;MEROITIC CURSIVE NUMBER FIFTY;No;0;R;;;50;N;;;;
109DB;MEROITIC CURSIVE NUMBER SEVENTY;No;0;R;;;70;N;;;;
109DC;MEROITIC CURSIVE NUMBER EIGHTY;No;0;R;;;80;N;;;;
109DE;MEROITIC CURSIVE NUMBER ONE HUNDRED;No;0;R;;;100;N;;;;
109DF;MEROITIC CURSIVE NUMBER TWO HUNDRED;No;0;R;;;200;N;;;;
109E0;MEROITIC CURSIVE NUMBER THREE HUNDRED;No;0;R;;;300;N;;;;
109E1;MEROITIC CURSIVE NUMBER FOUR HUNDRED;No;0;R;;;400;N;;;;
109E2;MEROITIC CURSIVE NUMBER FIVE HUNDRED;No;0;R;;;500;N;;;;
109E3;MEROITIC CURSIVE NUMBER SIX HUNDRED;No;0;R;;;600;N;;;;
109E4;MEROITIC CURSIVE NUMBER SEVEN HUNDRED;No;0;R;;;700;N;;;;
109E5;MEROITIC CURSIVE NUMBER EIGHT HUNDRED;No;0;R;;;800;N;;;;
109E7;MEROITIC CURSIVE NUMBER ONE THOUSAND;No;0;R;;;1000;N;;;;
109E8;MEROITIC CURSIVE NUMBER TWO THOUSAND;No;0;R;;;2000;N;;;;
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




10. Bibliography.

- ‘Abd Allāh, ‘Abd al-Qādir Maḥmūd. 1986. *Al-Lughah al-Marawīyah*. Taḥta ishrāf Markaz al-Buḥūth, Kullīyat al-Ādāb, Jāmi‘at al-Malik Sa‘ūd. [Al-Riyāḍ]: al-Jāmi‘ah.
- Griffith, F. Ll. 1911. *Karanòg: The Meroitic inscriptions of Shablûl and Karanòg*. Philadelphia: University Museum.
- Hofmann, Inge. 1991. *Steine für die Ewigkeit: Meroitische Opfertafeln und Totenstelen*. (Beiträge zur Sudanforschung; Beiheft 6). Wien: Mödling.
- Millet, N. B. 1996. “The Meroitic script”, in *The World’s Writing Systems*, ed. Peter T. Daniels & William Bright. New York; Oxford: Oxford University Press. ISBN 0-19-507993-0
- Rilly, Claude. 2007. *La langue du royaume de Méroé: un panorama de la plus ancienne culture écrite d’Afrique subsaharienne*. Paris: Librairie Honoré Champion.
- Török László. 1996. “A general note to the Meroitic texts” in *Fontes Historiae Nubiorum: Textual sources for the history of the Middle Nile Region between the Eighth Century BC and the Sixth Century AD. Vol. II: From the Mid-Fifth to the First Century BC*. Pp. 359-61. Bergen: Universitetet i Bergen.
- Woodard, Roger D. 2004. “Introduction”, in *The Cambridge encyclopedia of the world’s ancient languages*, ed. Roger Woodard, p. 7. Cambridge: Cambridge University Press.

















































11. Acknowledgements. This project was made possible in part by a grant from the U.S. National Endowment for the Humanities, which funded the which funded the Universal Scripts Project (part of the Script Encoding Initiative at UC Berkeley) in respect of the Meroitic encoding. Any views, findings, conclusions or recommendations expressed in this publication do not necessarily reflect those of the National Endowment of the Humanities.

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0	 10980	 10990
1	 10981	 10991
2	 10982	 10992
3	 10983	 10993
4	 10984	 10994
5	 10985	 10995
6	 10986	 10996
7	 10987	 10997
8	 10988	 10998
9	 10989	 10999
A	 1098A	 1099A
B	 1098B	 1099B
C	 1098C	 1099C
D	 1098D	 1099D
E	 1098E	 1099E
F	 1098F	 1099F

Vowel letters





- 10980  MEROITIC HIEROGLYPHIC LETTER A
→ 13000  egyptian hieroglyph a001
- 10981  MEROITIC HIEROGLYPHIC LETTER E
→ 13184  egyptian hieroglyph h006
- 10982  MEROITIC HIEROGLYPHIC LETTER I
→ 1301E  egyptian hieroglyph a026
- 10983  MEROITIC HIEROGLYPHIC LETTER O
→ 130FE  egyptian hieroglyph f001



































































Consonant letters

- 10984  MEROITIC HIEROGLYPHIC LETTER YA
→ 131CC  egyptian hieroglyph m017a
- 10985  MEROITIC HIEROGLYPHIC LETTER WA
→ 1336F  egyptian hieroglyph v004
- 10986  MEROITIC HIEROGLYPHIC LETTER BA
→ 130DE  egyptian hieroglyph e011
- 10987  MEROITIC HIEROGLYPHIC LETTER BA-2
→ 130C0  egyptian hieroglyph d058
- 10988  MEROITIC HIEROGLYPHIC LETTER PA
→ 132AA  egyptian hieroglyph q003
- 10989  MEROITIC HIEROGLYPHIC LETTER MA
→ 13153  egyptian hieroglyph g017
- 1098A  MEROITIC HIEROGLYPHIC LETTER NA
→ 13216  egyptian hieroglyph n035
- 1098B  MEROITIC HIEROGLYPHIC LETTER NA-2
- 1098C  MEROITIC HIEROGLYPHIC LETTER NE
→ 131D2  egyptian hieroglyph m022a
- 1098D  MEROITIC HIEROGLYPHIC LETTER NE-2
- 1098E  MEROITIC HIEROGLYPHIC LETTER RA
→ 1308B  egyptian hieroglyph d021
- 1098F  MEROITIC HIEROGLYPHIC LETTER RA-2
- 10990  MEROITIC HIEROGLYPHIC LETTER LA
→ 130ED  egyptian hieroglyph e023
- 10991  MEROITIC HIEROGLYPHIC LETTER KHA
→ 1340D  egyptian hieroglyph aa001
- 10992  MEROITIC HIEROGLYPHIC LETTER HHA
→ 133BC  egyptian hieroglyph w011
- 10993  MEROITIC HIEROGLYPHIC LETTER SA
→ 131B7  egyptian hieroglyph m008
- 10994  MEROITIC HIEROGLYPHIC LETTER SA-2
→ 13283  egyptian hieroglyph o034
- 10995  MEROITIC HIEROGLYPHIC LETTER SE
→ 13283  egyptian hieroglyph o034
- 10996  MEROITIC HIEROGLYPHIC LETTER KA
→ 1316C  egyptian hieroglyph g038
- 10997  MEROITIC HIEROGLYPHIC LETTER QA
→ 1320E  egyptian hieroglyph n029
- 10998  MEROITIC HIEROGLYPHIC LETTER TA
→ 1337F  egyptian hieroglyph v013
- 10999  MEROITIC HIEROGLYPHIC LETTER TA-2
→ 131FE  egyptian hieroglyph n016
- 1099A  MEROITIC HIEROGLYPHIC LETTER TE
→ 131FE  egyptian hieroglyph n016
→ 13254  egyptian hieroglyph o004
- 1099B  MEROITIC HIEROGLYPHIC LETTER TE-2
→ 13254  egyptian hieroglyph o004
- 1099C  MEROITIC HIEROGLYPHIC LETTER TO
→ 13205  egyptian hieroglyph n021

- 1099D  MEROITIC HIEROGLYPHIC LETTER DA
→ 1307B  egyptian hieroglyph d006

Symbols

- 1099E  MEROITIC HIEROGLYPHIC SYMBOL VIDJ
→ 2625  ankh
→ 132F9  egyptian hieroglyph s034
- 1099F  MEROITIC HIEROGLYPHIC SYMBOL VIDJ-2

	109A	109B	109C	109D	109E	109F
0	 109A0	 109B0	 109C0	 109D0	 109E0	 109F0
1	 109A1	 109B1	 109C1	 109D1	 109E1	
2	 109A2	 109B2	 109C2	 109D2	 109E2	
3	 109A3	 109B3	 109C3	 109D3	 109E3	
4	 109A4	 109B4	 109C4	 109D4	 109E4	
5	 109A5	 109B5	 109C5	 109D5	 109E5	
6	 109A6	 109B6	 109C6	 109D6		
7	 109A7	 109B7	 109C7	 109D7	 109E7	
8	 109A8		 109C8	 109D8	 109E8	
9	 109A9		 109C9	 109D9	 109E9	
A	 109AA		 109CA			
B	 109AB			 109DB	 109EB	
C	 109AC		 109CC	 109DC		
D	 109AD		 109CD			
E	 109AE	 109BE	 109CE	 109DE		
F	 109AF	 109BF	 109CF	 109DF		

Vowel letters

109A0	Ɔ	MEROITIC CURSIVE LETTER A
109A1	Ǝ	MEROITIC CURSIVE LETTER E
109A2	Ǝ	MEROITIC CURSIVE LETTER I
109A3	/	MEROITIC CURSIVE LETTER O

Consonant letters

109A4	///	MEROITIC CURSIVE LETTER YA
109A5	δ	MEROITIC CURSIVE LETTER WA
109A6	✓	MEROITIC CURSIVE LETTER BA
109A7	Ξ	MEROITIC CURSIVE LETTER PA
109A8	∫	MEROITIC CURSIVE LETTER MA
109A9	ℓ	MEROITIC CURSIVE LETTER NA
109AA	Λ	MEROITIC CURSIVE LETTER NE
109AB	ω	MEROITIC CURSIVE LETTER RA
109AC	ς	MEROITIC CURSIVE LETTER LA
109AD	⋖	MEROITIC CURSIVE LETTER KHA
109AE	⋗	MEROITIC CURSIVE LETTER HHA
109AF	∫	MEROITIC CURSIVE LETTER SA
109B0	ϣ	MEROITIC CURSIVE LETTER ARCHAIC SA
109B1	///	MEROITIC CURSIVE LETTER SE
109B2	⋈	MEROITIC CURSIVE LETTER KA
109B3	∫	MEROITIC CURSIVE LETTER QA
109B4	⋗	MEROITIC CURSIVE LETTER TA
109B5	↙	MEROITIC CURSIVE LETTER TE
109B6	←	MEROITIC CURSIVE LETTER TO
109B7	⋈	MEROITIC CURSIVE LETTER DA

Logograms

109BE		MEROITIC CURSIVE LOGOGRAM RMT
109BF		MEROITIC CURSIVE LOGOGRAM IMN






Fractions

109C0	~	MEROITIC CURSIVE FRACTION ONE HALF
109C1	·	MEROITIC CURSIVE FRACTION ONE TWELFTH
109C2	..	MEROITIC CURSIVE FRACTION TWO TWELFTHS
109C3	⋮	MEROITIC CURSIVE FRACTION THREE TWELFTHS
109C4	::	MEROITIC CURSIVE FRACTION FOUR TWELFTHS
109C5	:::	MEROITIC CURSIVE FRACTION FIVE TWELFTHS
109C6	:::	MEROITIC CURSIVE FRACTION SIX TWELFTHS
109C7	:::	MEROITIC CURSIVE FRACTION SEVEN TWELFTHS
109C8	:::	MEROITIC CURSIVE FRACTION EIGHT TWELFTHS
109C9	:::	MEROITIC CURSIVE FRACTION NINE TWELFTHS
109CA	:::	MEROITIC CURSIVE FRACTION TEN TWELFTHS

Numbers

Ones









109CC	I	MEROITIC CURSIVE NUMBER ONE
109CD	II	MEROITIC CURSIVE NUMBER TWO
109CE	III	MEROITIC CURSIVE NUMBER THREE
109CF	IIII	MEROITIC CURSIVE NUMBER FOUR

109D0		MEROITIC CURSIVE NUMBER FIVE
109D1		MEROITIC CURSIVE NUMBER SIX
109D2		MEROITIC CURSIVE NUMBER SEVEN
109D3		MEROITIC CURSIVE NUMBER EIGHT
109D4		MEROITIC CURSIVE NUMBER NINE











Tens

109D5	↵	MEROITIC CURSIVE NUMBER TEN
109D6	↶	MEROITIC CURSIVE NUMBER TWENTY
109D7	×	MEROITIC CURSIVE NUMBER THIRTY
109D8	⌞	MEROITIC CURSIVE NUMBER FORTY
109D9	⌟	MEROITIC CURSIVE NUMBER FIFTY
109DA	▣	<reserved>
109DB	↗	MEROITIC CURSIVE NUMBER SEVENTY
109DC	⌘	MEROITIC CURSIVE NUMBER EIGHTY

Hundreds




















































109DE		MEROITIC CURSIVE NUMBER ONE HUNDRED
109DF		MEROITIC CURSIVE NUMBER TWO HUNDRED
109E0		MEROITIC CURSIVE NUMBER THREE HUNDRED
109E1		MEROITIC CURSIVE NUMBER FOUR HUNDRED
109E2		MEROITIC CURSIVE NUMBER FIVE HUNDRED
109E3		MEROITIC CURSIVE NUMBER SIX HUNDRED
109E4		MEROITIC CURSIVE NUMBER SEVEN HUNDRED
109E5		MEROITIC CURSIVE NUMBER EIGHT HUNDRED

Thousands






109E7		MEROITIC CURSIVE NUMBER ONE THOUSAND
109E8		MEROITIC CURSIVE NUMBER TWO THOUSAND
109E9		MEROITIC CURSIVE NUMBER THREE THOUSAND
109EA		<reserved>
109EB		MEROITIC CURSIVE NUMBER FIVE THOUSAND
109EC		<reserved>
109ED		<reserved>
109EE		<reserved>
109EF		<reserved>
109F0		MEROITIC CURSIVE NUMBER TEN THOUSAND

Figures

The following is a list of the Meroitic alphabet in order according to the values of the signs. The evidence for the values given will be found in the detailed discussion of the signs below:—

(1)   initial <i>a</i> or alif.	(12)   <i>r</i> .
(2)   vowel <i>e</i> (earlier sometimes <i>ye</i>).	(13)   <i>l</i> , older  .
(3)   vowel <i>i</i> .	(14)   <i>h</i> .
(4)   vowel <i>i</i> (earlier sometimes <i>yi</i>).	(15)   <i>h</i> .
(5)   <i>y</i> .	(16)   <i>s(c)</i> .
(6)   <i>w</i> .	(17)   <i>s</i> .
(7)   <i>b</i> .	(18)   <i>k</i> .
(8)   <i>p</i> .	(19)   <i>q</i> , older  .
(9)   <i>m</i> .	(20)   <i>t(i)</i> .
(10)   <i>n</i> .	(21)   <i>t</i> , older  .
(11)   <i>n(i)</i> older <i>x</i> .	(22)   <i>t</i> .
	(23)   <i>s(?)</i> , older   .

The hieroglyphic letters in brackets are forms occurring in the inscription *Meroë* 1 and sometimes elsewhere.

The above scheme of the alphabet shows a close connexion with Egyptian values for the signs.  like  appears to be a reduplication of the corresponding Egyptian sign.  for *h* and  for *r* seem to be the only signs devoid of any probable explanation from the Egyptian side: and the value of  is as yet only guessed.





The demotic letters, 5 , 9 , 16 , 17 , resemble the Egyptian demotic signs. The rest show no such resemblance, but may have been derived by a long process from some form of hieratic, or more directly from the hieroglyphic.

Figure 1. Table from Griffith 1911 showing the alphabet in both Meroitic Hieroglyphic and Meroitic Cursive.

INDEX C

MEROITIC WORDS AND GROUPS

Abbreviations:—n. personal name, n. A. name of deceased, n. AA. of second deceased, n. B. of mother (n. BB. &c.), n. C. of father (n. CC. &c.); pl. n., place name; form. A B C D &c., terminal formulae A B C D &c., see Ch. V, p. 42; inv., invocation, see Ch. III, p. 33; descr., occurring in descriptive phrases, see p. 38. Eg., Egyptian. Titles are roughly divided as civil and sac(erdotal).

- 𐎃, 𐎄
- 𐎃𐎎𐎎𐎎𐎎𐎎𐎎 n. B. *Kar.* 36
 𐎃𐎎𐎎𐎎𐎎 n. B. *Kar.* 28
 48113𐎎𐎎𐎎𐎎𐎎𐎎𐎎 n. A. *Kar.* 10
 1𐎎𐎎𐎎𐎎 title(?) of 𐎎𐎎. *Kar.* 6, v. 1𐎎𐎎𐎎𐎎
 48145𐎎𐎎𐎎𐎎𐎎 n. A. (man) *Kar.* 2
 48113𐎎𐎎𐎎𐎎𐎎 n. A. *Kar.* 68
 481413𐎎𐎎 descr. *Kar.* 78
 𐎃𐎎𐎎𐎎𐎎 n. B. *Kar.* 73, 𐎎𐎎𐎎𐎎𐎎 n. B. *Kar.* 74
 48113𐎎𐎎𐎎𐎎𐎎 n. A. A. *Kar.* 29, 39
 𐎎𐎎𐎎𐎎 'envoy', Eg. *wpt*, descr. *Sh.* 4, 6, 19, see p. 10
 𐎃𐎎𐎎𐎎𐎎 n. (?) descr. *Kar.* 21
 34𐎎𐎎𐎎𐎎 'chief envoy', descr. *Kar.* 56, *Sh.* 3 (twice), 8
 48113𐎎𐎎𐎎𐎎 n. A. *Kar.* 93
 𐎃𐎎𐎎𐎎 n. B. *Kar.* 54
 448𐎎𐎎 n. C. *Kar.* 119
 48𐎎𐎎[𐎎𐎎]𐎎 'of Amanap' deity, descr. *Kar.* 102, v. *Mnp* and see p. 71
 444𐎎𐎎 n. B. *Kar.* 37
 48113𐎎𐎎𐎎𐎎 n. A. *Kar.* 96
 48𐎎𐎎𐎎 'of Ammon', descr. *Kar.* 46, 58, v. *Mni*
 1𐎎𐎎𐎎 sac. title, descr. *Kar.* 124, v. 1𐎎𐎎𐎎
 𐎃𐎎𐎎𐎎 civil title, descr. *Kar.* 47, 59
 344𐎎𐎎 n. B. *Kar.* 112
- 𐎎𐎎𐎎 'prophet' (Eg.), descr. *Kar.* 15 (twice), 19 (thrice), 21 (five times), 47, 50, 56, 60 (twice), 69, 87, 89 (thrice), 117, 119, 125, 126, cf. *at* and see p. 57
 44𐎎𐎎 descr. *Kar.* 118
 𐎎𐎎𐎎 pl. descr. *Kar.* 22
 𐎎𐎎 sac. title, descr. *Kar.* 58, 102
 44𐎎𐎎 descr. *Kar.* 47
 𐎃𐎎𐎎𐎎𐎎 sac. title (in Eg. *arbtgi*, *arbtugi*), descr. *Kar.* 92, see p. 82, note 5
 𐎎𐎎𐎎𐎎 'of Rome', descr. *Kar.* 112, cf. *Inscr.* 129/4 and see pp. 10, 72
 44𐎎𐎎 n. B. *Sh.* 11
 4811344𐎎𐎎𐎎 n. A. *Kar.* 20, [21]
 48113𐎎𐎎𐎎𐎎 n. A. *Kar.* 60, cf. 61
 48113𐎎𐎎𐎎𐎎 n. A. *Kar.* 29, 39
 481453𐎎𐎎 title(?), descr. *Kar.* 41
 𐎎3𐎎𐎎 sac. title, descr. *Kar.* 13
 𐎃𐎎𐎎𐎎 n. B. *Kar.* 64, 𐎃𐎎𐎎𐎎 n. B. *Sh.* 4
 44𐎎𐎎 n. B. *Kar.* 91
 48113𐎎𐎎𐎎𐎎 n. A. A. *Kar.* 61, cf. 60
 𐎎𐎎𐎎𐎎 title(?), descr. *Kar.* 10, 36, 70
 𐎃𐎎𐎎𐎎 *Kar. Ostr.* 3 (exterior)
 48113𐎎𐎎𐎎𐎎 n. A. *Kar.* 119
 𐎎𐎎𐎎 sac. title, descr. *Kar.* 30, -𐎎𐎎
 44𐎎𐎎𐎎 descr. *Kar.* 127, see p. 82

Figure 2. First page of the glossary from Griffith 1911.

REM 0089

REM 0088

REM 0133

مفردات من اللغات القديمة مكتوبة كتابة تجريدية: المروية

٤٢ ، ٤٢ (الهجرة)

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٢٥١ 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿𐏀𐏁𐏂𐏃𐏄𐏅𐏆𐏇𐏈𐏉𐏊𐏋𐏌𐏍𐏎𐏏𐏐𐏑𐏒𐏓𐏔𐏕𐏖𐏗𐏘𐏙𐏚𐏛𐏜𐏝𐏞𐏟𐏠𐏡𐏢𐏣𐏤𐏥𐏦𐏧𐏨𐏩𐏪𐏫𐏬𐏭𐏮𐏯𐏰𐏱𐏲𐏳𐏴𐏵𐏶𐏷𐏸𐏹𐏺𐏻𐏼𐏽𐏾𐏿𐐀𐐁𐐂𐐃𐐄𐐅𐐆𐐇𐐈𐐉𐐊𐐋𐐌𐐍𐐎𐐏𐐐𐐑𐐒𐐓𐐔𐐕𐐖𐐗𐐘𐐙𐐚𐐛𐐜𐐝𐐞𐐟𐐠𐐡𐐢𐐣𐐤𐐥𐐦𐐧𐐨𐐩𐐪𐐫𐐬𐐭𐐮𐐯𐐰𐐱𐐲𐐳𐐴𐐵𐐶𐐷𐐸𐐹𐐺𐐻𐐼𐐽𐐾𐐿𐑀𐑁𐑂𐑃𐑄𐑅𐑆𐑇𐑈𐑉𐑊𐑋𐑌𐑍𐑎𐑏𐑐𐑑𐑒𐑓𐑔𐑕𐑖𐑗𐑘𐑙𐑚𐑛𐑜𐑝𐑞𐑟𐑠𐑡𐑢𐑣𐑤𐑥𐑦𐑧𐑨𐑩𐑪𐑫𐑬𐑭𐑮𐑯𐑰𐑱𐑲𐑳𐑴𐑵𐑶𐑷𐑸𐑹𐑺𐑻𐑼𐑽𐑾𐑿𐒀𐒁𐒂𐒃𐒄𐒅𐒆𐒇𐒈𐒉𐒊𐒋𐒌𐒍𐒎𐒏𐒐𐒑𐒒𐒓𐒔𐒕𐒖𐒗𐒘𐒙𐒚𐒛𐒜𐒝𐒞𐒟𐒠𐒡𐒢𐒣𐒤𐒥𐒦𐒧𐒨𐒩𐒪𐒫𐒬𐒭𐒮𐒯𐒰𐒱𐒲𐒳𐒴𐒵𐒶𐒷𐒸𐒹𐒺𐒻𐒼𐒽𐒾𐒿𐓀𐓁𐓂𐓃𐓄𐓅𐓆𐓇𐓈𐓉𐓊𐓋𐓌𐓍𐓎𐓏𐓐𐓑𐓒𐓓𐓔𐓕𐓖𐓗𐓘𐓙𐓚𐓛𐓜𐓝𐓞𐓟𐓠𐓡𐓢𐓣𐓤𐓥𐓦𐓧𐓨𐓩𐓪𐓫𐓬𐓭𐓮𐓯𐓰𐓱𐓲𐓳𐓴𐓵𐓶𐓷𐓸𐓹𐓺𐓻𐓼𐓽𐓾𐓿𐔀𐔁𐔂𐔃𐔄𐔅𐔆𐔇𐔈𐔉𐔊𐔋𐔌𐔍𐔎𐔏𐔐𐔑𐔒𐔓𐔔𐔕𐔖𐔗𐔘𐔙𐔚𐔛𐔜𐔝𐔞𐔟𐔠𐔡𐔢𐔣𐔤𐔥𐔦𐔧𐔨𐔩𐔪𐔫𐔬𐔭𐔮𐔯𐔰𐔱𐔲𐔳𐔴𐔵𐔶𐔷𐔸𐔹𐔺𐔻𐔼𐔽𐔾𐔿𐕀𐕁𐕂𐕃𐕄𐕅𐕆𐕇𐕈𐕉𐕊𐕋𐕌𐕍𐕎𐕏𐕐𐕑𐕒𐕓𐕔𐕕𐕖𐕗𐕘𐕙𐕚𐕛𐕜𐕝𐕞𐕟𐕠𐕡𐕢𐕣𐕤𐕥𐕦𐕧𐕨𐕩𐕪𐕫𐕬𐕭𐕮𐕯𐕰𐕱𐕲𐕳𐕴𐕵𐕶𐕷𐕸𐕹𐕺𐕻𐕼𐕽𐕾𐕿𐖀𐖁𐖂𐖃𐖄𐖅𐖆𐖇𐖈𐖉𐖊𐖋𐖌𐖍𐖎𐖏𐖐𐖑𐖒𐖓𐖔𐖕𐖖𐖗𐖘𐖙𐖚𐖛𐖜𐖝𐖞𐖟𐖠𐖡𐖢𐖣𐖤𐖥𐖦𐖧𐖨𐖩𐖪𐖫𐖬𐖭𐖮𐖯𐖰𐖱𐖲𐖳𐖴𐖵𐖶𐖷𐖸𐖹𐖺𐖻𐖼𐖽𐖾𐖿𐗀𐗁𐗂𐗃𐗄𐗅𐗆𐗇𐗈𐗉𐗊𐗋𐗌𐗍𐗎𐗏𐗐𐗑𐗒𐗓𐗔𐗕𐗖𐗗𐗘𐗙𐗚𐗛𐗜𐗝𐗞𐗟𐗠𐗡𐗢𐗣𐗤𐗥𐗦𐗧𐗨𐗩𐗪𐗫𐗬𐗭𐗮𐗯𐗰𐗱𐗲𐗳𐗴𐗵𐗶𐗷𐗸𐗹𐗺𐗻𐗼𐗽𐗾𐗿𐘀𐘁𐘂𐘃𐘄𐘅𐘆𐘇𐘈𐘉𐘊𐘋𐘌𐘍𐘎𐘏𐘐𐘑𐘒𐘓𐘔𐘕𐘖𐘗𐘘𐘙𐘚𐘛𐘜𐘝𐘞𐘟𐘠𐘡𐘢𐘣𐘤𐘥𐘦𐘧𐘨𐘩𐘪𐘫𐘬𐘭𐘮𐘯𐘰𐘱𐘲𐘳𐘴𐘵𐘶𐘷𐘸𐘹𐘺𐘻𐘼𐘽𐘾𐘿𐙀𐙁𐙂𐙃𐙄𐙅𐙆𐙇𐙈𐙉𐙊𐙋𐙌𐙍𐙎𐙏𐙐𐙑𐙒𐙓𐙔𐙕𐙖𐙗𐙘𐙙𐙚𐙛𐙜𐙝𐙞𐙟𐙠𐙡𐙢𐙣𐙤𐙥𐙦𐙧𐙨𐙩𐙪𐙫𐙬𐙭𐙮𐙯𐙰𐙱𐙲𐙳𐙴𐙵𐙶𐙷𐙸𐙹𐙺𐙻𐙼𐙽𐙾𐙿𐚀𐚁𐚂𐚃𐚄𐚅𐚆𐚇𐚈𐚉𐚊𐚋𐚌𐚍𐚎𐚏𐚐𐚑𐚒𐚓𐚔𐚕𐚖𐚗𐚘𐚙𐚚𐚛𐚜𐚝𐚞𐚟𐚠𐚡𐚢𐚣𐚤𐚥𐚦𐚧𐚨𐚩𐚪𐚫𐚬𐚭𐚮𐚯𐚰𐚱𐚲𐚳𐚴𐚵𐚶𐚷𐚸𐚹𐚺𐚻𐚼𐚽𐚾𐚿𐛀𐛁𐛂𐛃𐛄𐛅𐛆𐛇𐛈𐛉𐛊𐛋𐛌𐛍𐛎𐛏𐛐𐛑𐛒𐛓𐛔𐛕𐛖𐛗𐛘𐛙𐛚𐛛𐛜𐛝𐛞𐛟𐛠𐛡𐛢𐛣𐛤𐛥𐛦𐛧𐛨𐛩𐛪𐛫𐛬𐛭𐛮𐛯𐛰𐛱𐛲𐛳𐛴𐛵𐛶𐛷𐛸𐛹𐛺𐛻𐛼𐛽𐛾𐛿𐜀𐜁𐜂𐜃𐜄𐜅𐜆𐜇𐜈𐜉𐜊𐜋𐜌𐜍𐜎𐜏𐜐𐜑𐜒𐜓𐜔𐜕𐜖𐜗𐜘𐜙𐜚𐜛𐜜𐜝𐜞𐜟𐜠𐜡𐜢𐜣𐜤𐜥𐜦𐜧𐜨𐜩𐜪𐜫𐜬𐜭𐜮𐜯𐜰𐜱𐜲𐜳𐜴𐜵𐜶𐜷𐜸𐜹𐜺𐜻𐜼𐜽𐜾𐜿𐝀𐝁𐝂𐝃𐝄𐝅𐝆𐝇𐝈𐝉𐝊𐝋𐝌𐝍𐝎𐝏𐝐𐝑𐝒𐝓𐝔𐝕𐝖𐝗𐝘𐝙𐝚𐝛𐝜𐝝𐝞𐝟𐝠𐝡𐝢𐝣𐝤𐝥𐝦𐝧𐝨𐝩𐝪𐝫𐝬𐝭𐝮𐝯𐝰𐝱𐝲𐝳𐝴𐝵𐝶𐝷𐝸𐝹𐝺𐝻𐝼𐝽𐝾𐝿𐞀𐞁𐞂𐞃𐞄𐞅𐞆𐞇𐞈𐞉𐞊𐞋𐞌𐞍𐞎𐞏𐞐𐞑𐞒𐞓𐞔𐞕𐞖𐞗𐞘𐞙𐞚𐞛𐞜𐞝𐞞𐞟𐞠𐞡𐞢𐞣𐞤𐞥𐞦𐞧𐞨𐞩𐞪𐞫𐞬𐞭𐞮𐞯𐞰𐞱𐞲𐞳𐞴𐞵𐞶𐞷𐞸𐞹𐞺𐞻𐞼𐞽𐞾𐞿𐟀𐟁𐟂𐟃𐟄𐟅𐟆𐟇𐟈𐟉𐟊𐟋𐟌𐟍𐟎𐟏𐟐𐟑𐟒𐟓𐟔𐟕𐟖𐟗𐟘𐟙𐟚𐟛𐟜𐟝𐟞𐟟𐟠𐟡𐟢𐟣𐟤𐟥𐟦𐟧𐟨𐟩𐟪𐟫𐟬𐟭𐟮𐟯𐟰𐟱𐟲𐟳𐟴𐟵𐟶𐟷𐟸𐟹𐟺𐟻𐟼𐟽𐟾𐟿𐠀𐠁𐠂𐠃𐠄𐠅𐠆𐠇𐠈𐠉𐠊𐠋𐠌𐠍𐠎𐠏𐠐𐠑𐠒𐠓𐠔𐠕𐠖𐠗𐠘𐠙𐠚𐠛𐠜𐠝𐠞𐠟𐠠𐠡𐠢𐠣𐠤𐠥𐠦𐠧𐠨𐠩𐠪𐠫𐠬𐠭𐠮𐠯𐠰𐠱𐠲𐠳𐠴𐠵𐠶𐠷𐠸𐠹𐠺𐠻𐠼𐠽𐠾𐠿𐡀𐡁𐡂𐡃𐡄𐡅𐡆𐡇𐡈𐡉𐡊𐡋𐡌𐡍𐡎𐡏𐡐𐡑𐡒𐡓𐡔𐡕𐡖𐡗𐡘𐡙𐡚𐡛𐡜𐡝𐡞𐡟𐡠𐡡𐡢𐡣𐡤𐡥𐡦𐡧𐡨𐡩𐡪𐡫𐡬𐡭𐡮𐡯𐡰𐡱𐡲𐡳𐡴𐡵𐡶𐡷𐡸𐡹𐡺𐡻𐡼𐡽𐡾𐡿𐢀𐢁𐢂𐢃𐢄𐢅𐢆𐢇𐢈𐢉𐢊𐢋𐢌𐢍𐢎𐢏𐢐𐢑𐢒𐢓𐢔𐢕𐢖𐢗𐢘𐢙𐢚𐢛𐢜𐢝𐢞𐢟𐢠𐢡𐢢𐢣𐢤𐢥𐢦𐢧𐢨𐢩𐢪𐢫𐢬𐢭𐢮𐢯𐢰𐢱𐢲𐢳𐢴𐢵𐢶𐢷𐢸𐢹𐢺𐢻𐢼𐢽𐢾𐢿𐣀𐣁𐣂𐣃𐣄𐣅𐣆𐣇𐣈𐣉𐣊𐣋𐣌𐣍𐣎𐣏𐣐𐣑𐣒𐣓𐣔𐣕𐣖𐣗𐣘𐣙𐣚𐣛𐣜𐣝𐣞𐣟𐣠𐣡𐣢𐣣𐣤𐣥𐣦𐣧𐣨𐣩𐣪𐣫𐣬𐣭𐣮𐣯𐣰𐣱𐣲𐣳𐣴𐣵𐣶𐣷𐣸𐣹𐣺𐣻𐣼𐣽𐣾𐣿𐤀𐤁𐤂𐤃𐤄𐤅𐤆𐤇𐤈𐤉𐤊𐤋𐤌𐤍𐤎𐤏𐤐𐤑𐤒𐤓𐤔𐤕𐤖𐤗𐤘𐤙𐤚𐤛𐤜𐤝𐤞𐤟𐤠𐤡𐤢𐤣𐤤𐤥𐤦𐤧𐤨𐤩𐤪𐤫𐤬𐤭𐤮𐤯𐤰𐤱𐤲𐤳𐤴𐤵𐤶𐤷𐤸𐤹𐤺𐤻𐤼𐤽𐤾𐤿𐥀𐥁𐥂𐥃𐥄𐥅𐥆𐥇𐥈𐥉𐥊𐥋𐥌𐥍𐥎𐥏𐥐𐥑𐥒𐥓𐥔𐥕𐥖𐥗𐥘𐥙𐥚𐥛𐥜𐥝𐥞𐥟𐥠𐥡𐥢𐥣𐥤𐥥𐥦𐥧𐥨𐥩𐥪𐥫𐥬𐥭𐥮𐥯𐥰𐥱𐥲𐥳𐥴𐥵𐥶𐥷𐥸𐥹𐥺𐥻𐥼𐥽𐥾𐥿𐦀𐦁𐦂𐦃𐦄𐦅𐦆𐦇𐦈𐦉𐦊𐦋𐦌𐦍𐦎𐦏𐦐𐦑𐦒𐦓𐦔𐦕𐦖𐦗𐦘𐦙𐦚𐦛𐦜𐦝𐦞𐦟𐦠𐦡𐦢𐦣𐦤𐦥𐦦𐦧𐦨𐦩𐦪𐦫𐦬𐦭𐦮𐦯𐦰𐦱𐦲𐦳𐦴𐦵𐦶𐦷𐦸𐦹𐦺𐦻𐦼𐦽𐦾𐦿𐧀𐧁𐧂𐧃𐧄𐧅𐧆𐧇𐧈𐧉𐧊𐧋𐧌𐧍𐧎𐧏𐧐𐧑𐧒𐧓𐧔𐧕𐧖𐧗𐧘𐧙𐧚𐧛𐧜𐧝𐧞𐧟𐧠𐧡𐧢𐧣𐧤𐧥𐧦𐧧𐧨𐧩𐧪𐧫𐧬𐧭𐧮𐧯𐧰𐧱𐧲𐧳𐧴𐧵𐧶𐧷𐧸𐧹𐧺𐧻𐧼𐧽𐧾𐧿𐨀𐨁𐨂𐨃𐨄𐨅𐨆𐨇𐨈𐨉𐨊𐨋𐨌𐨍𐨎𐨏𐨐𐨑𐨒𐨓𐨔𐨕𐨖𐨗𐨘𐨙𐨚𐨛𐨜𐨝𐨞𐨟𐨠𐨡𐨢𐨣𐨤𐨥𐨦𐨧𐨨𐨩𐨪𐨫𐨬𐨭𐨮𐨯𐨰𐨱𐨲𐨳𐨴𐨵𐨶𐨷𐨹𐨺𐨸𐨻𐨼𐨽𐨾𐨿𐩀𐩁𐩂𐩃𐩄𐩅𐩆𐩇𐩈𐩉𐩊𐩋𐩌𐩍𐩎𐩏𐩐𐩑𐩒𐩓𐩔𐩕𐩖𐩗𐩘𐩙𐩚𐩛𐩜𐩝𐩞𐩟𐩠𐩡𐩢𐩣𐩤𐩥𐩦𐩧𐩨𐩩𐩪𐩫𐩬𐩭𐩮𐩯𐩰𐩱𐩲𐩳𐩴𐩵𐩶𐩷𐩸𐩹𐩺𐩻𐩼𐩽𐩾𐩿𐪀𐪁𐪂𐪃𐪄𐪅𐪆𐪇𐪈𐪉𐪊𐪋𐪌𐪍𐪎𐪏𐪐𐪑𐪒𐪓𐪔𐪕𐪖𐪗𐪘𐪙𐪚𐪛𐪜𐪝𐪞𐪟𐪠𐪡𐪢𐪣𐪤𐪥𐪦𐪧𐪨𐪩𐪪𐪫𐪬𐪭𐪮𐪯𐪰𐪱𐪲𐪳𐪴𐪵𐪶𐪷𐪸𐪹𐪺𐪻𐪼𐪽𐪾𐪿𐫀𐫁𐫂𐫃𐫄𐫅𐫆𐫇𐫈𐫉𐫊𐫋𐫌𐫍𐫎𐫏𐫐𐫑𐫒𐫓𐫔𐫕𐫖𐫗𐫘𐫙𐫚𐫛𐫜𐫝𐫞𐫟𐫠𐫡𐫢𐫣𐫤𐫦𐫥𐫧𐫨𐫩𐫪𐫫𐫬𐫭𐫮𐫯𐫰𐫱𐫲𐫳𐫴𐫵𐫶𐫷𐫸𐫹𐫺𐫻𐫼𐫽𐫾𐫿𐬀𐬁𐬂𐬃𐬄𐬅𐬆𐬇𐬈𐬉𐬊𐬋𐬌𐬍𐬎𐬏𐬐𐬑𐬒𐬓𐬔𐬕𐬖𐬗𐬘𐬙𐬚𐬛𐬜𐬝𐬞𐬟𐬠𐬡𐬢𐬣𐬤𐬥𐬦𐬧𐬨𐬩𐬪𐬫𐬬𐬭𐬮𐬯𐬰𐬱𐬲𐬳𐬴𐬵𐬶𐬷𐬸𐬹𐬺𐬻𐬼𐬽𐬾𐬿𐭀𐭁𐭂𐭃𐭄𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿𐮀𐮁𐮂𐮃𐮄𐮅𐮆𐮇𐮈𐮉𐮊𐮋𐮌𐮍𐮎𐮏𐮐𐮑𐮒𐮓𐮔𐮕𐮖𐮗𐮘𐮙𐮚𐮛𐮜𐮝𐮞𐮟𐮠𐮡𐮢𐮣𐮤𐮥𐮦𐮧𐮨𐮩𐮪𐮫𐮬𐮭𐮮𐮯𐮰𐮱𐮲𐮳𐮴𐮵𐮶𐮷𐮸𐮹𐮺𐮻𐮼𐮽𐮾𐮿𐯀𐯁𐯂𐯃𐯄𐯅𐯆𐯇𐯈𐯉𐯊𐯋𐯌𐯍𐯎𐯏𐯐𐯑𐯒𐯓𐯔𐯕𐯖𐯗𐯘𐯙𐯚𐯛𐯜𐯝𐯞𐯟𐯠𐯡𐯢𐯣𐯤𐯥𐯦𐯧𐯨𐯩𐯪𐯫𐯬𐯭𐯮𐯯𐯰𐯱𐯲𐯳𐯴𐯵𐯶𐯷𐯸𐯹𐯺𐯻𐯼𐯽𐯾𐯿𐰀𐰁𐰂𐰃𐰄𐰅𐰆𐰇𐰈𐰉𐰊𐰋𐰌𐰍𐰎𐰏𐰐𐰑𐰒𐰓𐰔𐰕𐰖𐰗𐰘𐰙𐰚𐰛𐰜𐰝𐰞𐰟𐰠𐰡𐰢𐰣𐰤𐰥𐰦𐰧𐰨𐰩𐰪𐰫𐰬𐰭𐰮𐰯𐰰𐰱𐰲𐰳𐰴𐰵𐰶𐰷𐰸𐰹𐰺𐰻𐰼𐰽𐰾𐰿𐱀𐱁𐱂𐱃𐱄𐱅𐱆𐱇𐱈𐱉𐱊𐱋𐱌𐱍𐱎𐱏𐱐𐱑𐱒𐱓𐱔𐱕𐱖𐱗𐱘𐱙𐱚𐱛𐱜𐱝𐱞𐱟𐱠𐱡𐱢𐱣𐱤𐱥𐱦𐱧𐱨𐱩𐱪𐱫𐱬𐱭𐱮𐱯𐱰𐱱𐱲𐱳𐱴𐱵𐱶𐱷𐱸𐱹𐱺𐱻𐱼𐱽𐱾𐱿𐲀𐲁𐲂𐲃𐲄𐲅𐲆𐲇𐲈𐲉𐲊𐲋𐲌𐲍𐲎𐲏𐲐𐲑𐲒𐲓𐲔𐲕𐲖𐲗𐲘𐲙𐲚𐲛𐲜𐲝𐲞𐲟𐲠𐲡𐲢𐲣𐲤𐲥𐲦𐲧𐲨𐲩𐲪𐲫𐲬𐲭𐲮𐲯𐲰𐲱𐲲𐲳𐲴𐲵𐲶𐲷𐲸𐲹𐲺𐲻𐲼𐲽𐲾𐲿𐳀𐳁𐳂𐳃𐳄𐳅𐳆𐳇𐳈𐳉𐳊𐳋𐳌𐳍𐳎𐳏𐳐𐳑𐳒𐳓𐳔𐳕𐳖𐳗𐳘𐳙𐳚𐳛𐳜𐳝𐳞𐳟𐳠𐳡𐳢𐳣𐳤𐳥𐳦𐳧𐳨𐳩𐳪𐳫𐳬𐳭𐳮𐳯𐳰𐳱𐳲𐳳𐳴𐳵𐳶𐳷𐳸𐳹𐳺𐳻𐳼𐳽𐳾𐳿𐴀𐴁𐴂𐴃𐴄𐴅𐴆𐴇𐴈𐴉𐴊𐴋𐴌𐴍𐴎𐴏𐴐𐴑𐴒𐴓𐴔𐴕𐴖𐴗𐴘𐴙𐴚𐴛𐴜𐴝𐴞𐴟𐴠𐴡𐴢𐴣𐴤𐴥𐴦𐴧𐴨𐴩𐴪𐴫𐴬𐴭𐴮𐴯𐴰𐴱𐴲𐴳𐴴𐴵𐴶𐴷𐴸𐴹𐴺𐴻𐴼𐴽𐴾𐴿𐵀𐵁𐵂𐵃𐵄𐵅𐵆𐵇𐵈𐵉𐵊𐵋𐵌𐵍𐵎𐵏𐵐𐵑𐵒𐵓𐵔𐵕𐵖𐵗𐵘𐵙𐵚𐵛𐵜𐵝𐵞𐵟𐵠𐵡𐵢𐵣𐵤𐵥𐵦𐵧𐵨𐵩𐵪𐵫𐵬𐵭𐵮𐵯𐵰𐵱𐵲𐵳𐵴𐵵𐵶𐵷𐵸𐵹𐵺𐵻𐵼𐵽𐵾𐵿𐶀𐶁𐶂𐶃𐶄𐶅𐶆𐶇𐶈𐶉𐶊𐶋𐶌𐶍𐶎𐶏𐶐𐶑𐶒𐶓𐶔𐶕𐶖𐶗𐶘𐶙𐶚𐶛𐶜𐶝𐶞𐶟𐶠𐶡𐶢𐶣𐶤𐶥𐶦𐶧𐶨𐶩𐶪𐶫𐶬𐶭𐶮𐶯𐶰𐶱𐶲𐶳𐶴𐶵𐶶𐶷𐶸𐶹𐶺𐶻𐶼𐶽𐶾𐶿𐷀𐷁𐷂𐷃𐷄𐷅𐷆𐷇𐷈𐷉𐷊𐷋𐷌𐷍𐷎𐷏𐷐𐷑𐷒𐷓𐷔𐷕𐷖𐷗𐷘𐷙𐷚𐷛𐷜𐷝𐷞𐷟𐷠𐷡𐷢𐷣𐷤𐷥𐷦𐷧𐷨𐷩𐷪𐷫𐷬𐷭𐷮𐷯𐷰𐷱𐷲𐷳𐷴𐷵𐷶𐷷𐷸𐷹𐷺𐷻𐷼𐷽𐷾𐷿𐸀𐸁𐸂𐸃𐸄𐸅𐸆𐸇𐸈𐸉𐸊𐸋𐸌𐸍𐸎𐸏𐸐𐸑𐸒𐸓𐸔𐸕𐸖𐸗𐸘𐸙𐸚𐸛𐸜𐸝𐸞𐸟𐸠𐸡𐸢𐸣𐸤𐸥𐸦𐸧𐸨𐸩𐸪𐸫𐸬𐸭𐸮𐸯𐸰𐸱𐸲𐸳𐸴𐸵𐸶𐸷𐸸𐸹𐸺𐸻𐸼𐸽𐸾𐸿𐹀𐹁𐹂𐹃𐹄𐹅𐹆𐹇𐹈𐹉𐹊𐹋𐹌𐹍𐹎𐹏𐹐𐹑𐹒𐹓𐹔𐹕𐹖𐹗𐹘𐹙𐹚𐹛𐹜𐹝𐹞𐹟𐹠𐹡𐹢𐹣𐹤𐹥𐹦𐹧𐹨𐹩𐹪𐹫𐹬𐹭𐹮𐹯𐹰𐹱𐹲𐹳𐹴𐹵𐹶𐹷𐹸𐹹𐹺𐹻𐹼𐹽𐹾𐹿𐺀𐺁𐺂𐺃𐺄𐺅𐺆𐺇𐺈𐺉𐺊𐺋𐺌𐺍𐺎𐺏𐺐𐺑𐺒𐺓𐺔𐺕𐺖𐺗𐺘𐺙𐺚𐺛𐺜𐺝𐺞𐺟𐺠𐺡𐺢𐺣𐺤𐺥𐺦𐺧𐺨𐺩𐺪𐺫𐺬𐺭𐺮𐺯𐺰𐺱𐺲𐺳𐺴𐺵𐺶𐺷𐺸𐺹𐺺𐺻𐺼𐺽𐺾𐺿𐻀𐻁𐻂𐻃𐻄𐻅𐻆𐻇𐻈𐻉𐻊𐻋𐻌𐻍𐻎𐻏𐻐𐻑𐻒𐻓𐻔𐻕𐻖𐻗𐻘𐻙𐻚𐻛𐻜𐻝𐻞𐻟𐻠𐻡𐻢𐻣𐻤𐻥𐻦𐻧𐻨𐻩𐻪𐻫𐻬𐻭𐻮𐻯𐻰𐻱𐻲𐻳𐻴𐻵𐻶𐻷𐻸𐻹𐻺𐻻𐻼𐻽𐻾𐻿𐼀𐼁𐼂𐼃𐼄𐼅𐼆𐼇𐼈𐼉𐼊𐼋𐼌𐼍𐼎𐼏𐼐𐼑𐼒𐼓𐼔𐼕𐼖𐼗𐼘𐼙𐼚𐼛𐼜𐼝𐼞𐼟𐼠𐼡𐼢𐼣𐼤𐼥𐼦𐼧𐼨𐼩𐼪𐼫𐼬𐼭𐼮𐼯𐼰𐼱𐼲𐼳𐼴𐼵𐼶𐼷𐼸𐼹𐼺𐼻𐼼𐼽𐼾𐼿𐽀𐽁𐽂𐽃𐽄𐽅𐽆𐽇𐽋𐽍𐽎𐽏𐽐𐽈𐽉𐽊𐽌𐽑𐽒𐽓𐽔𐽕𐽖𐽗𐽘𐽙𐽚𐽛𐽜𐽝𐽞𐽟𐽠𐽡𐽢𐽣𐽤𐽥𐽦𐽧𐽨𐽩𐽪𐽫𐽬𐽭𐽮𐽯𐽰𐽱𐽲𐽳𐽴𐽵𐽶𐽷𐽸𐽹𐽺𐽻𐽼𐽽𐽾𐽿𐾀𐾁𐾃𐾅𐾂𐾄𐾆𐾇𐾈𐾉𐾊𐾋𐾌𐾍𐾎𐾏𐾐𐾑𐾒𐾓𐾔𐾕𐾖𐾗𐾘𐾙𐾚𐾛𐾜𐾝𐾞

Hierogl. Units	Late hieratic cent. IX-III.	Abnorm. hier. cent. IX-VI	Early demotic cent. VIII-VI	Later dem. cent. IV-I	Meroitic (suggested)	Hierogl. Hundreds	Late hieratic	Abnorm. hier.	Early demotic	Later demotic	Meroitic (suggested)
I	1	1	1	1	1	9	1		1	1	1
II	4	11	11	4	11	99	11		11	11	11
III	44	111	111	44	111	999	111		111	111	111
III	44	111	111	44	111	etc.	111		111	111	111
III	7	7	7.7	9	X 7	500	7		7	7	7 obelisk
III	2	2.2	2.2	4.4	11.11	600	2		2	2	2 obelisk
III	2	2	2	2	X.11	700	2		2	2	2
III	2	2	2	2	2	800	2		2	2	2 Inscr 86
III	2	2	2	2	2	900	2		2	2	2
Tens						Thousands					
n	1	1.1.1	1	1.2	X.1	1	1		1	1	1 Ak. 26
nn	2 Rylands	1.1.1	5.5	5	X.1	11	11		11	11	3 ob Ak. 25
nnn	1.1.1	1	1.1.1	1.1	X.1	111	111		111	111	3 Inscr 86
etc	1	1	1	1	1	etc	1		1	1	1
50	1	1.1.1	1.1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1
60	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1
70	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1
80	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1
90	1.1	1.1	1.1	1.1	1.1	1.1	1.1		1.1	1.1	1.1
<p>Groups of Meroitic numerals</p> <p>11 Inscr 101 = 12</p> <p>111 Inscr 89 = 34</p> <p>111 Inscr 70 = 24</p> <p>1 X Stela Ak 5 = 135</p> <p>Miscellaneous</p> <p>11 Inscr 26 = 1776</p> <p>11 Inscr 42 = 10320</p> <p>11 Inscr 25 = 2348</p> <p>The Meroitic Numerals.</p> <p>dots from . to . (fracture)</p> <p>1 = 1/2</p>											

Figure 6. Table of Meroitic numbers.

Tableau 8 : Équations de Griffith permettant d'établir la valeur des signes

équation	mot méroïtique	graphie méroïtique	équivalents égyptiens et démotiques	équivalents coptes et grecs	donne valeur de
(a)	<i>Natakamani</i> Natakamani				ⲛⲁⲕⲁⲙⲁⲛⲓ
(b)	<i>Amanitère</i> Amanitore				ⲁⲙⲁⲛⲓⲧⲉⲣⲉ
(c)	<i>Amani Amon</i>			ⲁⲙⲟⲩⲛ, ⲁⲙⲉⲛⲓⲛ	ⲁⲙⲁⲛⲓ ⲁⲙⲟⲩⲛ
(d)	<i>Wês Isis</i>	3/8, 3 48		ⲙⲉⲥⲉ, *ⲙⲉⲥⲓ	3
(e)	<i>Asêri Osiris</i>	4ω / 352		ⲟⲩⲥⲓⲣⲉ, *ⲟⲩⲥⲓⲣⲓ	3, ω
(f)	<i>Ar Horus</i>	ω 52	Ⲭⲣ	ⲉⲱⲣ, ⲉⲁⲣ-	52, ω
(g)	<i>Pilege, Pilaqe, Pilaqê Philae</i>	5/755 4ξ 5/755 4ξ 1/755 4ξ	dém. P-3ylq	ⲡⲓⲕⲁⲕ	ξ, 4, 5/7
(h)	<i>Atiye Sedeinga</i>	5/11 4552	Ⲭⲓⲧⲓ ⲧⲓⲱ = /ḥa-teye/ (?)		11.52.7
(i)	<i>tewisti adoration</i>	45 11 48/5	dém. t-ivšte	ⲧⲟⲩⲁⲱⲧⲉ *ⲧⲟⲩⲉⲱⲧⲓ	15, 8, 11, 7
(j)	<i>pelamêš stratège</i>	3/355 ξ	dém. p-mr-mš ^c	ⲡⲁⲉⲙⲙⲓⲱⲉ *ⲡⲁⲉⲙⲙⲱ	ξ, 5, 5, 3, 1, 3
(k)	<i>perite agent</i>	15 4ω 5 ξ	dém. p-r̥t	ⲡ-ⲣⲙⲧ	ξ, 5, ω, 15
(l)	<i>qêreñ un titre</i>	25ω / 17	transcr. dém. qrnj		17, ω, 2
(m)	<i>Paḥaras Faras</i>	111 ω 3 ξ		ⲡⲁⲭⲱⲣⲁⲥ, ⲡⲁⲭⲱⲣⲁⲥ	ξ, 3, ω, 111
(n)	<i>Šaye Saï</i>	5/113		Ⲥⲁⲙ	3, 111

Figure 7. Table from Rilly 2007 showing texts in both Meroitic Hieroglyphic and Meroitic Cursive.

A. Administrative

1. Title

Proposal for encoding the Meroitic Hieroglyphic and Meroitic Cursive scripts in the SMP of the UCS

2. Requester's name

UC Berkeley Script Encoding Initiative (Universal Scripts Project)

3. Requester type (Member body/Liaison/Individual contribution)

Liaison contribution.

4. Submission date

2009-07-29

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

No.

6b. More information will be provided later

Yes.

B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

Yes.

1b. Proposed name of script

Meroitic Hieroglyphics and Meroitic Cursive.

1c. The proposal is for addition of character(s) to an existing block

No.

1d. Name of the existing block

2. Number of characters in proposal

98 (32, 66).

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

Category E.

4a. Is a repertoire including character names provided?

Yes.

4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

Yes.

4c. Are the character shapes attached in a legible form suitable for review?

Yes.

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

Michael Everson.

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

Michael Everson, Fontographer.

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

Yes.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

Yes.

7. Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

Yes.

8. Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see Unicode Character Database <http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

See above.

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

No.

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes.

2b. If YES, with whom?

Richard Lobban, Reginald Smith, Claude Rilly, Michael Zach

2c. If YES, available relevant documents

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

Small community, scholars and historians.

4a. The context of use for the proposed characters (type of use; common or rare)

Scholarly use.

4b. Reference

5a. Are the proposed characters in current use by the user community?

Yes.

5b. If YES, where?

Worldwide.

6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

No.

6b. If YES, is a rationale provided?

6c. If YES, reference

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

Yes.

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

No.

8b. If YES, is a rationale for its inclusion provided?

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

No.

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

Yes.

10b. If YES, is a rationale for its inclusion provided?

Yes.

10c. If YES, reference

Similarity to Egyptian hieroglyphs is genetic but superficial.

11a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?

No.

11b. If YES, is a rationale for such use provided?

11c. If YES, reference

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

No.

11e. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

No.

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

No.

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?